

Key Differences Across the Languages:

- C++ (First appeared: 1983)
- Java (First appeared: 1995)
- C# (First appeared: 2000)

Around 80% coding syntaxes are same/identical

Some Key Differences Across the Languages:

So far we have learned the following key differences:

- 1) **Structure of the main() method**
- 2) **Output Statements**
- 3) **Input Statements**
- 4) **In Some Keywords**
- 5) **The switch/case Statement**

Some Key Differences Across the Languages:

1) Structure of the main() method

In C++:

```
int main() {  
    /* Codes go here */  
} // End of the main()
```

In Java:

```
class Main {  
    public static void main(String[] args) {  
        /* Codes go here */  
    } // End of the main()  
} // End of the class
```

In C#:

```
namespace HelloWorld{  
    class Main {  
        public static void Main(string[] args) {  
            /* Codes go here */  
        } // End of the main()  
    } // End of the class  
} // End of the namespace
```

Some Key Differences Across the Languages:

2) Output Statements

In C++:

```
cout << "Hello " << "World" << endl;
```

In Java:

```
System.out.println("Hello " + "World");
```

In C#:

```
Console.WriteLine("Hello " + "World");
```

Some Key Differences Across the Languages:

3) Input Statements

In C++:

```
cin >> variableName; // cin does not take spaces  
getline(cin, variableName); // getline() takes space
```

In Java:

```
import java.util.Scanner;  
// Needs to import the Scanner class  
Scanner scan = new Scanner (System.in);  
String name = scan.nextLine();  
int age = scan.nextInt();
```

In C#:

```
using System; // Needs to use System  
string name = Console.ReadLine();  
int age = int.Parse(Console.ReadLine());  
// Give attention here... OR  
int age = Convert.ToInt32(Console.ReadLine());
```



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Some Key Differences Across the Languages:

4) In Some Keywords

In C++:

```
bool isActive = true;
```

In Java:

```
boolean isActive = true;
```

In C#:

```
bool isActive = true;
```

Some Key Differences Across the Languages:

5) The switch/case Statement

C++:

Allows to have missing break statement(s)

Java:

Allows to have missing break statement(s)

C#:

Does NOT allow to have any missing break statement

Some Key Differences Across the Languages:

More Differences are coming in Function, and Class, Object and Array Declaration

C++:

Java:

C#: